

Section 4

Work Safety Planning

4.1 Scope

This section sets forth the requirements of work planning. It includes hazard assessment, job hazard analyses (JHAs), communications, emergency response plans, site safety plans, lightning hazards, and lone work plans. This section applies to all Reclamation and contractor activities.

4.2 General Requirements

4.2.1 Hazard Assessments

The responsible supervisor must assure that a workplace or work activities assessment is completed to determine if hazards are present or are likely to be present. The supervisor can complete a pre-job hazard analysis from Form 4-1 (Appendix 4A); if warranted, the supervisor will ensure a written JHA is completed to identify all potential hazards. If potential exists for exposure to any chemical, physical, or biological agent that may have a detrimental effect, the supervisor must ensure that a health hazard assessment is included with the JHA.

4.2.2 Facility Safety

To help manage the safety and health of Reclamation employees, contractors, and visitors, each site should develop its own customized annual site safety plan. This allows the site's management to share its philosophy, expectations, and requirements for safety and health at the facility. It is also a means for documenting and communicating to employees the site annual safety goals.

4.3 Responsibilities

4.3.1 Area Office Program Coordinators

- 4.3.1.1** Shall ensure that JHAs are being created and followed when appropriate.
- 4.3.1.2** Shall assist first-line supervisors with mitigation measures for complex hazards or work tasks.
- 4.3.1.3** Shall ensure that a fatigue management plan is created and followed by all appropriate personnel (when applicable).

4.3.1.4 Shall assist in the creation of the site safety plan.

4.3.1.5 Shall assist in the preparation of the emergency response plan.

4.3.2 First-Line Supervisors

4.3.2.1 Shall ensure that JHAs are prepared and followed before each job is assigned.

4.3.2.2 Shall assist and advise the team preparing the JHA to ensure that all appropriate hazards are addressed in the JHA.

4.3.2.3 Shall ensure that all personnel are trained on JHAs, fatigue management, and emergency response plans.

4.3.3 Onsite Job Leads

4.3.3.1 Shall ensure that all employees involved in a task covered by a JHA are familiar with and understand the JHA.

4.3.3.2 Shall assist in the preparation of all JHAs for tasks with which they are involved.

4.3.4 People Doing the Work

4.3.4.1 Shall review the JHAs for the work they do, understand the JHA requirements and methods to mitigate any hazards, and follow the JHA guidance.

4.3.4.2 Shall understand emergency response procedures and follow those procedures during an emergency.

4.3.4.3 Shall follow the fatigue management plan to minimize fatigue-related hazards.

4.4 Training Requirements

4.4.1 Initial

All employees are required to be trained initially on JHA preparation and use, emergency response procedures, the site safety plan, and the fatigue management plan. No work will be assigned to an employee until they have been trained on and demonstrated these procedures.

4.4.2 Physical Qualification

All employees must be physically and medically qualified, as appropriate, for performing their assigned duties.

4.4.3 Certification

Supervisors shall ensure employees are certified or qualified as required in all sections of the Reclamation Safety and Health Standards. All field supervisors should be certified in first aid and cardiopulmonary resuscitation (CPR).

4.5 Hazard Identification, Assessment, and Safety Measures

4.5.1 Requirements for JHAs

The responsible supervisor must review any completed risk assessments and all tasks associated with a job to determine if a JHA is required. When developing the JHA, the job lead can use the optional Pre-Job Hazard Checklist (Forms 4-1 and 4-2 in Appendix 4A) and the following JHA process flow chart to guide the process.

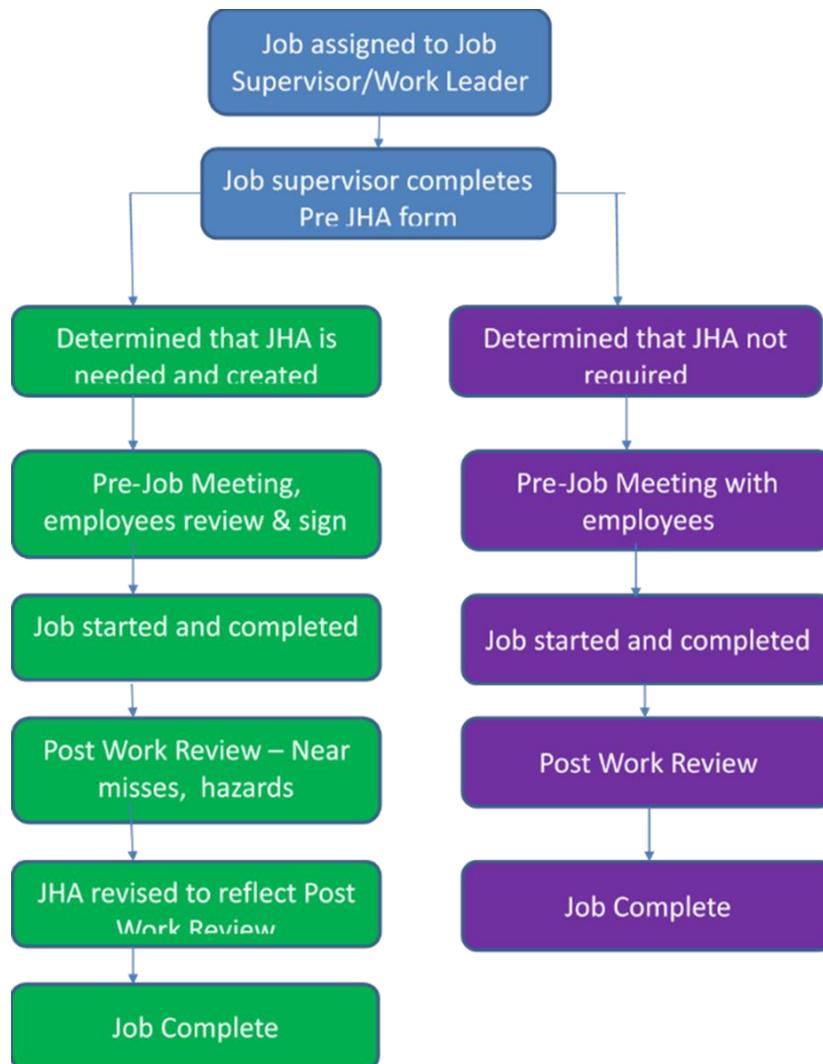


FIGURE 4-1. Flow chart for use in determining whether a JHA is required for a job.

In making the assessment, the supervisor must consider mechanical, electrical, pressure, temperature, chemical, biological, radiation, sound, gravity, or motion hazards that can result in death or serious bodily injury. Examples of such hazards can include the following:

- Being struck by falling or flying objects
- Getting pinched in/between or caught in rotating machinery
- Lifting excessive weight or lifting frequently
- Repetitive motion
- Electrical shock
- Radiation from welding and other sources
- Drowning
- Significant exposure to toxic or hazardous substances, gases, fumes, and atmospheres
- Falls from heights above 4 feet

4.5.2 Completing the Job Hazard Analysis

If the supervisor determines a JHA is required, the supervisor or their designated employee must consult with the employees involved in the activity and, if necessary, the local safety and health professional to develop a JHA. The job lead must review and sign the JHA, and the reviewing official must approve the JHA to indicate all appropriate hazards are addressed. The supervisor or their designated employee must then review the JHA with employees at a pre-job meeting before performing the work. A copy of the JHA must be maintained at the work site.

4.5.3 Written Procedures

Written procedures or job plans may be attached to the JHA as additional documentation; however, step-by-step procedures will be incorporated into the JHA.

4.5.4 Elements of a Job Hazard Analysis

Record developed written procedures using the sample Reclamation-wide standard form in Appendix 4B: Job Hazard Analysis. At a minimum, the JHA must include the following basic elements:

- Title identifying the project and specifying the operation
- A number used for recording and indexing
- Emergency information, including physical location and emergency phone number(s)
- The date, to ensure the procedure is current
- Description of work to be performed
- Equipment, tools, and facilities involved
- Required employee knowledge, skills, physical ability, and certifications
- Principal or significant steps/tasks/activities of the operation in sequence

- Approval signatures

4.5.4.1 Guidance for Significant Steps. Supervisors will divide operations into only the number of significant steps/tasks/activities necessary to ensure adequate consideration of important items. Significant steps are those that encompass major aspects of the work. Limit the JHA to 7 to 10 significant steps/tasks/activities, and no more than 15 if the entire job is included.

When evaluating the hazards of each significant step, include all hazards associated with the entire step without becoming encumbered by the details. Comprehension of the related safety message is enhanced if the document contains only brief, succinct points versus lengthy, complex narratives. Examples of significant steps include the following:

- Remove head cover
- Remove old gasket
- Clean gasket surface
- Replace gasket
- Replace head cover

4.5.4.2 Risk Assessment. The determination of risk is a subjective, qualitative process that considers the criticality of the task, process, or condition. When assessing risk, consider physical, chemical, and/or biological hazards for each step of the job task. For high-risk hazards, use the DOI Operational Risk Management Assessment matrix (<https://www.smis.doi.gov/safetynet/information/program/ORMP.html>) as appropriate. The risk assessment matrix uses a combination of severity (the most serious type of injury or illness that can reasonably be expected from exposure to a hazardous condition) and probability (the likelihood that a condition will occur) to provide a decision maker with accurate information he or she can use to make informed decisions concerning appropriate risk controls.

4.5.4.3 Hierarchy of Controls. Identify hazard control measures using the hierarchy of controls:

- Elimination of the hazard
- Substitution
- Engineering controls
- Administrative controls
- Safety equipment and personal protective equipment (PPE)

When using safety equipment and/or PPE as a hazard control measure, the supervisor or foreman must provide employees with the specific safety equipment that is required. For example, instead of simply stating that a respirator is required, the supervisor/foreman must provide employees with a full-face negative pressure respirator with combination HEPA and organic vapor cartridge.

- 4.5.4.4 Required Training.** JHAs must identify any required training (e.g., forklift training, Class 2 Asbestos training, etc.) and job leads must confirm that involved employees' training is current.
- 4.5.4.5 Required Certifications.** JHAs must identify required certifications (e.g., crane operator certification) and job leads must confirm that involved employees' certifications are current.
- 4.5.4.6 Required Signatures.** JHAs must include signatures of the job lead and the reviewing official.
- 4.5.4.7 Pre-approval Review for High-Risk Tasks.** JHAs for tasks identified as high-risk that cannot be fully mitigated must be reviewed by a safety specialist or an industrial hygienist before approval by the job lead.
- 4.5.4.8 Pre-approval Review for Significant-Exposure Tasks.** JHAs for tasks identified as having significant risk of exposure to occupational health issues that cannot be fully mitigated must be reviewed by a safety specialist or an industrial hygienist before approval by the job lead.
- 4.5.4.9 Post-job JHA Review.** A post-job review must be performed by all team members involved in the task within seven days of job completion. This can be an informal review conducted after the work is completed, except when an activity resulted in a near miss, an injury, or damage to a facility. The JHA for a particular job/task must be updated to reflect lessons learned from the review, including any incidents involving a near miss, an injury, or damage to facility. The updated JHA must be approved by the appropriate supervisor.
- 4.5.4.10 Manager Review of Updated JHAs.** An appropriate manager must review the updated JHA in conjunction with the appropriate safety specialist and/or any necessary subject matter experts with 14 days of any near miss, injury, or damage to the equipment or facility.

4.5.4.11 Reassessment During Work. As work is performed under a JHA, workers and supervisors can reassess the JHA to ensure that all significant hazards have been addressed and adequate hazard controls have been implemented. Job site monitoring and observation of work activities must be a basis for assessment and revision. All work must stop whenever the JHA is determined to be lacking in identification or mitigation of hazards, or whenever the scope of work has changed. Work cannot restart until either a revised JHA or a new JHA is developed, discussed with all affected employees, and signed by all affected employees and the job lead.

4.5.5 Elements/Activities Not Necessary in a JHA

It is not necessary to document every conceivable common hazard if the potential injury is not expected to require more than first aid treatment. Examples of such common day-to-day hazards include walking on level or slightly inclined surfaces, climbing standard staircases, lifting moderately light objects with little or no repetition, infrequent bending, operating a passenger vehicle, and using common hand tools and equipment.

4.5.6 High-Risk Tasks that Cannot Be Mitigated

A high-risk task that cannot be mitigated requires the approval of the safety specialist and an appropriate manager (e.g., facility manager and area manager, regional office division chief, or equivalent) before the work can begin.

4.5.7 Emergency Call-Out Situations that Must Be Addressed Immediately

The job lead shall complete a pre-job hazard checklist and JHA, even if a supervisor is not available to sign the JHA. The job lead and the first-level supervisor shall discuss the JHA with the second-level supervisor after the work is completed.

4.5.8 Approvals

All approvals indicated on the JHA form shall be completed before activities begin, except in the circumstances described in paragraph 4.5.7. Verbal confirmation of approval can be used in special circumstances, for example, during an emergency call out.

4.6 Pre-job Briefing and Planning Requirements

4.6.1 Pre-job Meeting

All team members involved in the task must participate in a pre-job meeting before starting work. The job lead will review the pre-JHA checklist (optional) and discuss the JHA. All team members must participate in the discussion of the JHA and revise the JHA if needed.

4.7 Hazardous Environmental Conditions (Weather/Other)

4.7.1 Lightning Safety

There is no safe place outside when lightning is within 5 miles. (Sound travels 1 mile every 5 seconds. If lightning is observed and thunder follows within 30 seconds, then the lightning is within 5 miles.) Personnel will begin seeking shelter when lightning is observed within 25 miles, especially on lakes and waterways. Move inside a strong building or an enclosed hardtop vehicle, and avoid contact with plumbing and inside wiring, including appliances and corded phones, during a thunderstorm.

4.7.2 Requirements for Lightning Hazard Plans

When outdoor work is performed where a lightning hazard has been identified, a lightning hazard plan shall be developed. The lightning hazard plan shall contain, at a minimum, the following items:

- A designated person responsible for monitoring the weather to initiate the evacuation process when appropriate.
- A protocol to notify all persons at risk from the lightning threat. Depending on the number of individuals involved, a team of people may be needed to coordinate the evacuation plan.
- Identified safe sites and a means to route the people to those locations.
- An identified all clear signal that is considerably different than the warning signal.

4.8 Safe Practices

4.8.1 Working Alone

When employees must work alone and when the possibility of injury and inability to provide medical treatment could create life-threatening situations, supervisors must implement protective measures. The JHA process must determine appropriate measures and address the specific situations and hazards.

4.8.2 Communication

An effective means of communication must be available. This communication could include cellular phone, two-way radios, hardline telephones, and check-in and check-out procedures. Selected communication must be tested before the start of operations to verify that equipment will operate efficiently in the environment.

- 4.8.2.1 Lone Workers.** When an employee is working alone in an isolated location, communicate frequently to ensure the employee's safety. In some instances, employees (such as dam tenders) are stationed in isolated work areas and generally

perform their duties alone. At a minimum, daily communication identifying activities and locations for that day is required.

4.8.3 Emergency Response Procedures

An emergency response plan must be in writing, and all employees must be informed about the plan and procedures. The emergency response plan must include provisions for emergency medical care and treatment. Include arrangements for ambulance service and emergency treatment and maintain a list of phone numbers. Contractors must submit emergency response plans to the contracting officer representative (COR) and the COR must approve the plan before the start of operations.

4.8.3.1 Lone Workers. Employees working alone must have an effective way to obtain emergency assistance. If an employee misses a pre-determined check-in, initiate emergency procedures.

4.8.4 Fatigue Management

Supervisors must ensure a fatigue management plan (FMP) is developed for the following work patterns:

- Work exceeds 10 hours a day for more than 4 consecutive days
- Work exceeds 50 hours in a 7-day work week
- Work exceeds 12 hours a day for more than 3 consecutive days
- Work exceeds 58 hours a week for sedentary work (including office work)

4.8.4.1 Fatigue Management Plan Requirements. The FMP shall identify affected workers, management responsibility, training, and the controls established at the worksite. The FMP shall also address the circumstances, approval procedures, and precautions for exceeding the following conditions for operator work hour limitations.

4.8.4.1.1 Equipment Operators. Operators of equipment, such as hoisting equipment and draglines, mobile construction equipment, electrically powered systems, hydropower plants, industrial manufacturing systems, hydraulically operated equipment, powered vessels, and boats, shall not be permitted to exceed 12 hours of duty time in any 24-hour period, including time worked at another occupation. A minimum of 8 consecutive hours of rest between shifts in a 24-hour period is required. See paragraph 4.9 for the definition of *rest*.

4.8.4.1.2 Motor Vehicle Operators. Operators of motor vehicles while on duty shall not operate vehicles for a continuous period of more than 10 hours in any 24-hour period. Moreover, no employee may operate a motor vehicle while on duty after being in a duty status for more

than 12 hours during any 24-hour period. A minimum of 8 consecutive hours shall be provided for rest in each 24-hour period.

4.8.4.1.3

Training. Training shall include symptoms of fatigue, habits and actions the worker may take to avoid fatigue, actions workers should take if they observe fatigue in a coworker, and controls in place to prevent fatigue.

4.8.4.1.4

Controls. Controls for fatigue may include work scheduling (limit number of consecutive night shifts), rotating jobs to prevent repetitive work, breaks at critical times in the work cycle, control of environmental factors (heat, cold, use of personal protective equipment), buddy check-in for individuals working alone, and alternate transportation for long commutes. Controls for fatigue shall include a discussion of driving to and from work and any possible mitigation of driving as a factor of fatigue.

4.9 Definitions in Appendix K and References in Appendix L

Appendix 4A: Pre-job Hazard Assessment Checklists

FORM 4-1. Pre-Job Hazard Assessment Checklist (O&M Activities)

PRE-JOB HAZARD ASSESSMENT CHECKLIST (O&M ACTIVITIES)	
Prepared By:	Work Location:
Project:	Date:
<p>This checklist is designed to help identify possible hazards and provide references to the RSHS. If hazards are present or likely to be present, then a job hazard analysis (JHA) is required. This checklist will help communicate environmental, safety and health hazards, control measures, and requirements to employees. This checklist contains information obtained during preliminary planning for this project and may not address all hazards, control measures, and/or requirements. The Job Lead must develop a written JHA if warranted by identified or potential hazards and must continue to refer to this checklist and the JHA throughout the work to ensure hazards are identified and mitigated.</p>	
<p>Conditions and Permits Anticipated</p> <p><input type="checkbox"/> Critical Lift (JHA required, RSHS section 19).</p> <p><input type="checkbox"/> Emergency Rescue/Response Plan.</p> <p><input type="checkbox"/> Fall Arrest (Fall Arrest Rescue Plan Required, RSHS section 16).</p> <p><input type="checkbox"/> HECP, Clearances (JHA required and may require exposure assessment (EA), RSHS 15, FIST 1-1).</p> <p><input type="checkbox"/> High Voltage Work Plan (JHA required, RSHS 12).</p> <p><input type="checkbox"/> JHA (RSHS section 4).</p> <p><input type="checkbox"/> Permit Required Confined Space (JHA required, RSHS 14).</p> <p><input type="checkbox"/> Special Work Permit (JHA required).</p> <p><input type="checkbox"/> Other (Specify) _____</p>	
<p>Activities That Require EA and a JHA</p> <p><input type="checkbox"/> Use of hazardous materials or physical agents including, but not limited to, toxic, reactive, biohazard, corrosive, flammable or those that have radiological properties. (routine and nominal use of citrus based chemicals, oils, greases, lubricants, penetrants, thread lock, thread release, cutting oils and coolants are not considered hazardous and do not require an EA if they are the only chemical agents in a process.) Note: An EA is not required for consumer products when the products are used in the workplace in the same manner that a consumer would use them, i.e., where the durations and frequency of use (and therefore exposure) is not greater than what the typical consumer would experience. This exemption in the Occupational Safety and Health Administration’s (OSHA) regulation is based, however, not upon the chemical manufacturer’s intended use of his product, but upon how it is used in the workplace.</p>	

- Use of personal protective equipment (PPE)** (respirators, chemical-resistant clothing, and chemical resistant gloves)
- Processes requiring grinding, crushing, cutting, blasting, or other abrasive processes.**
- Tasks Involving the release metals** (e.g., welding, grinding, soldering, brazing, cutting, burning, gouging, plasma cutting, laser cutting)
- Involve mixing, handling, storage, removal or application of paint related materials**, e.g. thinners, catalyst, solvents, adhesives, epoxies, sealants, base coats, middle coats, topcoats, fillers or resins.
- Tasks Involving mixing, handling, storage, and application of pesticides/herbicides.**
- Involve work tasks, operations, or equipment that generate noise levels which equal or exceed 85 decibel A-weighted (dBA) as an 8-hour TWA.**
- Involve entry into a confined space.**
- Involve a work-related medical surveillance program, or medical monitoring associated with work tasks, operations, regulatory task requirements, or unacceptable exposure.**
- Involve handling or working with or on equipment that handle bodily fluids or biological hazards.**
- Involve batching, mixing, cutting, chipping, crushing, coring, or drilling concrete.**
- Involve entry into an area, or conducting a work task or working on equipment, contaminated with rodent feces, dander, or nest.**

Analytical Data: (example: previous asbestos, lead samples, noise level monitoring)

Hazards Identified	
<input type="checkbox"/> Arc Flash	<input type="checkbox"/> High Traffic Areas
<input type="checkbox"/> Asbestos	<input type="checkbox"/> Lead
<input type="checkbox"/> Around Water Activity	<input type="checkbox"/> Mobile Equipment
<input type="checkbox"/> Bloodborne Pathogens (RSHS 7.12)	<input type="checkbox"/> Noise
<input type="checkbox"/> Chemical Use	<input type="checkbox"/> Operating Rotating Equipment (RSHS 20.12)
<input type="checkbox"/> Confined Space	<input type="checkbox"/> Overhead Cranes in Area (RSHS 18, 19)
<input type="checkbox"/> Dust	<input type="checkbox"/> PCBs Present

<input type="checkbox"/> Electrical	<input type="checkbox"/> Roof Exposure (RSHS 16)
<input type="checkbox"/> Eye Hazards – particles / contact	<input type="checkbox"/> Temperature Extremes
<input type="checkbox"/> Fall Hazards	<input type="checkbox"/> Working Alone
<input type="checkbox"/> Hazardous Materials	<input type="checkbox"/> Working in Remote Location
Safety Equipment Requirements	
<input type="checkbox"/> Air Monitor (RSHS 14.4)	<input type="checkbox"/> First Aid Kits (RSHS 5)
<input type="checkbox"/> Anchorage Points Tested	<input type="checkbox"/> Ground Spotter (RSHS 5)
<input type="checkbox"/> Barricades/Safety Cones (RSHS 9)	<input type="checkbox"/> Lightning Plan
<input type="checkbox"/> Communications (RSHS 4.)	<input type="checkbox"/> Lockout/Tagout (RSHS 15)
<input type="checkbox"/> Evacuation Alarms (RSHS 10)	<input type="checkbox"/> Personal Grounds (RSHS 12)
<input type="checkbox"/> Evacuation Maps Clearly Posted (RSHS 10)	<input type="checkbox"/> Retrieval Tripod (RSHS 14)
<input type="checkbox"/> Eye Wash Stations (RSHS 7)	<input type="checkbox"/> Verify Load Testing
<input type="checkbox"/> Equipment (Specify)	<input type="checkbox"/> Verify protective devices are operational and properly Configured.
<input type="checkbox"/> Fire Extinguisher (RSHS 10)	<input type="checkbox"/> Other: (Specify)
CONDUCT PPE Hazard Assessment Survey (RSHS 8).	
Training/Certifications	
<input type="checkbox"/> Asbestos (RSHS 7, specify Class: e.g. IV, III, II, I)	
<input type="checkbox"/> Bloodborne Pathogens (RSHS 7)	
<input type="checkbox"/> Confined Space (RSHS 14)	
<input type="checkbox"/> Crane Operator (RSHS 19)	
<input type="checkbox"/> Electrical (RSHS 12)	
<input type="checkbox"/> Emergency Evacuation Procedure (RSHS 10 and 6)	
<input type="checkbox"/> Fall Protection	
<input type="checkbox"/> HECP/LOTO (RSHS 15)	
<input type="checkbox"/> Ladder Use (RSHS 13)	
<input type="checkbox"/> Lead (RSHS 7)	
<input type="checkbox"/> PCBs (40 CFR 761)	
<input type="checkbox"/> Respirator (RSHS 7)	
<input type="checkbox"/> Scaffolding (RSHS 13)	
<input type="checkbox"/> Other (Specify)	
Specify Environmental Issues/ Permits (Attach additional paper if Needed)	
List Conditions Particular to Work Site (example: high wind hazards during catwalk work, other job site specific information).	

FORM 4-2. Pre-Job Hazard Assessment Checklist (Natural Resource Activities)

PRE-JOB HAZARD ASSESSMENT CHECKLIST (NATURAL RESOURCE ACTIVITIES)	
Prepared By:	Work Location:
Project:	Date:
<p>This checklist is designed to help identify possible hazards and provide references to the RSHS. If hazards are present or likely to be present, then a job hazard analysis (JHA) is required. This checklist will help communicate environmental, safety and health hazards, control measures, and requirements to employees. This checklist contains information obtained during preliminary planning for this project and may not address all hazards, control measures, and/or requirements. The Job Lead must develop a written JHA if warranted by identified or potential hazards and must continue to refer to this checklist and the JHA throughout the work to ensure hazards are identified and mitigated.</p>	
Activities That Require Exposure Assessment (EA) and a JHA	
<p><input type="checkbox"/> Use of hazardous materials or physical agents including, but not limited to, toxic, reactive, biohazard, corrosive, flammable or those that have radiological properties. (routine and nominal use of citrus based chemicals, oils, greases, lubricants, penetrants, thread lock, thread release, cutting oils and coolants are not considered hazardous and do not require an exposure assessment if they are the only chemical agents in a process.) Note: An EA is not required for consumer products when the products are used in the workplace in the same manner that a consumer would use them, i.e., where the durations and frequency of use (and therefore exposure) is not greater than what the typical consumer would experience. This exemption in OSHA’s regulation is based, however, not upon the chemical manufacturer’s intended use of his product, but upon how it is used in the workplace.</p> <p><input type="checkbox"/> Use of PPE (respirators, personal floatation devices, Long sleeve clothing, and gloves)</p> <p><input type="checkbox"/> Involve mixing, handling, storage, removal or application of fish anesthetics/pharmaceuticals related materials.</p> <p><input type="checkbox"/> Tasks Involving mixing, handling, storage, and application of pesticides/herbicides.</p> <p><input type="checkbox"/> Involve work tasks, operations, or equipment that generate noise levels which equal or exceed 85 decibel A-weighted (dBA) as an 8-hour TWA.</p> <p><input type="checkbox"/> Involve handling or working with or on equipment that handle human or animal/fish bodily fluids or biological hazards.</p>	

- Involve extensive walking and/or hiking on rough and/or uneven terrain with/without carrying heavy loads and equipment.**
- Involve working outdoors or in environments with extreme and variable weather conditions.** (heat, cold, snow, sudden violent storms)
- Involve entry into an area, or conducting a work task or working on equipment, contaminated with rodent/bird feces, dander, or nests. Environments that are inhabited by insects, snakes, and predatory mammals that may cause physical harm should be evaluated for PPE and training requirements.**

Analytical Data: (example: noise level monitoring)

Hazards Identified

<input type="checkbox"/> Around Water Activity	<input type="checkbox"/> High Traffic Areas
<input type="checkbox"/> Bloodborne Pathogens (RSHS 7.12)	<input type="checkbox"/> Ladders/Scaffolding (RSHS 13)
<input type="checkbox"/> Chemical Use	<input type="checkbox"/> Mobile Equipment
<input type="checkbox"/> Confined Space	<input type="checkbox"/> Noise
<input type="checkbox"/> Dust	<input type="checkbox"/> Operating Rotating Equipment (RSHS 20.31.1)
<input type="checkbox"/> Electrical	<input type="checkbox"/> Temperature Extremes
<input type="checkbox"/> Eye Hazards – particles / contact	<input type="checkbox"/> Working Alone
<input type="checkbox"/> Fall Hazards	<input type="checkbox"/> Working in Remote Location
<input type="checkbox"/> Hazardous Materials	

Other Safety Requirements

<input type="checkbox"/> Attendant	<input type="checkbox"/> Insect Repellent
<input type="checkbox"/> Barricades/Safety Cones (RSHS 9)	<input type="checkbox"/> Lightning Plan
<input type="checkbox"/> Communications (RSHS 4.)	<input type="checkbox"/> Lockout/Tagout (RSHS 15)
<input type="checkbox"/> Evacuation Mapped Out from remote Location	<input type="checkbox"/> Personal Grounds (RSHS 12)
<input type="checkbox"/> Eye Wash Stations (RSHS 7)	<input type="checkbox"/> Safety Data Sheets
<input type="checkbox"/> Equipment (Specify) <input type="checkbox"/>	<input type="checkbox"/> Sunscreen
<input type="checkbox"/> Fire Extinguisher (RSHS 10)	<input type="checkbox"/> Verify Load Testing
<input type="checkbox"/> First Aid Kits (RSHS 5)	<input type="checkbox"/> Verify protective devices are operational and properly Configured.
<input type="checkbox"/> Ground Spotter (RSHS 5)	<input type="checkbox"/> Other: (Specify)

CONDUCT PPE Hazard Assessment Survey (RSHS 8).
Training/Certifications
<input type="checkbox"/> Bloodborne Pathogens (RSHS 7)
<input type="checkbox"/> Emergency Evacuation Procedure (RSHS 10 and 6)
<input type="checkbox"/> Fall Protection
<input type="checkbox"/> Ladder Use (RSHS 13)
<input type="checkbox"/> Respirator (RSHS 7)
<input type="checkbox"/> Other (Specify)
Specify Environmental Issues/ Permits (Attach additional paper if Needed)
List Conditions Particular to Work Site (example: high wind hazards during catwalk work, other job site specific information).

Appendix 4B: Job Hazard Analysis

FORM 4-3. Standardized JHA Form

Bureau of Reclamation Job Hazard Analysis Form						
Emergency Information	Job Location	GPS Location	Emergency Phone	Nearest Hospital	Law Enforcement	Ambulance
Job/Project Title: _____ Date: _____ JHA # _____ Job Description: _____ Equipment/Tools/Facilities Involved: _____ Applicable Regulatory References: _____						
	SIGNIFICANT STEPS/MAJOR ACTIVITIES IN SEQUENCE	HAZARDS (Physical, Chemical, Biological, Etc.)	HAZARD CONTROLS (Elimination, Substitution, Engineering, Administrative Control, Personal Protective Equipment)	HIGH RISK/EXPOSURE ASSESSMENT (Y/N)		
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						

Note: Divide operations only into the sequence of significant steps/major activities necessary to ensure adequate consideration of important items. It is suggested that when a JHA has more than 15 significant steps/major activities that the scope of work be evaluated for separation into multiple Job Hazard Analyses.

Required Training:	Required PPE:	Required Certifications, Licenses, Permits, Clearances, Critical Lift Plan, Entry Permits etc. (Confirm all are valid and current):
Additional information:		

Job Hazard Analysis Review/Approval					
Was the optional Pre-Job Assessment form used to help identify potential hazards?		Yes	No		
If new High Risk Hazards were identified, was the JHA reviewed by a safety professional and a risk assessment completed if necessary?		Yes	No		
Was an exposure assessment accomplished by an industrial hygienist for activities with newly identified potential health hazards?		Yes	No		
Job Lead		Supervisor Approval			
Signature:		Signature:			
Date:		Date:			
Safety Specialist Review (Only Newly Identified High Risk Hazard/Exposure Assessments that cannot be appropriately mitigated)		Industrial Hygienist Review (Only Newly Identified High Risk Hazard/Exposure Assessments that cannot be appropriately mitigated)			
Signature:		Signature:			
Date:		Date:			
Facility Manager Approval (High Risk Hazard that cannot be appropriately mitigated)		Area Manager, or Regional Office Chief, or Equivalent Approval (High Risk Hazard that cannot be appropriately mitigated)			
Signature:		Signature:			
Date:		Date:			
The following individuals have reviewed, UNDERSTAND, and acknowledge their responsibility to comply with this JHA and all attached documentation.					
Date	Print Name	Signature	Date	Print Name	Signature

Post-Job Review			
The contents of this Job Hazard Analysis was discussed with affected employees before they started assigned tasks.		Yes	No
An after action review was conducted with team members within 7 days of completion of all tasks associated with this job hazard analysis. Lessons learned were annotated below, and the JHA was updated within 30 calendar days.		Yes	No
Were there any incidents involving a near miss, injury, or damage to equipment or facility?		Yes	No
If yes, was the JHA reviewed by all team members and corrections made and reviewed by the Regional Office Division Chief/Facility Manager within 14 calendar days?		Yes	No
Lessons Learned (synopsis):			
Job Lead		Supervisor Approval	Regional Office Division Chief/Facility Manager Review (JHA review required if an accident or near miss occurred)
Signature:		Signature:	Signature:
Date:		Date:	Date: